INTERNATIONAL
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Oklahoma City, Oklahoma

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LOW ANGLE RADIATION CITIZENS RADIO END FED VERTICAL ANTENNA FOR BASE STATION USE

The antenna mounts, by use of two "U" bolts, on 1" pipe, or 1" diameter to 1-1/4" diameter tubing. It may be mounted to the roof, or side of a building by using the proper mast and mount hardware which is available at your dealer. The antenna may be mounted directly to the side of a pole or structure by removing the "U" bolts supplied, and substituting 1/4" diameter lag bolts which would fasten the antenna mounting brackets directly to the desired location. NOTE: Be sure the radials on the upper mounting bracket are just above the mounting surface.

The antenna is designed with a 50 ohm nominal impedance. Use 50 ohm transmission line, RG-8/U or RG-58/U. Fit the antenna end of the cable with a PL-259 connector to connect with the coaxial fitting at the bottom of the antenna. Use care in making up the cable. Check connectors at both ends of the cable to insure a good connection and for shorts or opens in the cable before it is installed. The antenna is tap fed and will show a direct dc short to ground across the terminals at the bottom of the antenna or from the center pin of connector to the shell.

For simple installation the antenna may be assembled in the following steps.

(1) Attach the solid rod radials to the upper mounting (smaller bracket with large hole in top) using the tinnerman clips and 5/8 inch self-tapping screws provided. The rods and clips mount on top of the bracket and the screws are inserted from the bottom. The plastic caps provided should be pushed over the screw ends after assembly. Larger caps are included for the ends of the radial rods.

(2) Assemble the vertical radiator tubes to the coil assembly using the 3/8 inch self tapping screws provided. Each radiator has two holes in each end except the top element. The end on which the holes are spaced approximately five inches from the end is inserted into the next larger section. This allows a half foot of overlap at each joint.

(3) Slip the upper bracket with radials over the coil-radiator assembly and slide it down to the top of the coil.

(4) Next attach the lower bracket to the mast using one of the "U" bolts supplied. Locate the bracket so that the upper edge is flush with the top of mast. This will insure the radials clearing the mast.

(5) Now the antenna with radial bracket may be hoisted and set in the lower bracket while the upper bracket is attached to the mast. The holes in the upper bracket are slightly off register with lower bracket holes and will require tilting the upper bracket when installing the upper "U" bolt. This action places a small pressure on the mounting bushing to insure a tight fit.

(6) Install the washer and nut over the coil connector to secure it to the bottom bracket.

(7) Attach the cable end connector PL-259 to the coil connector. Tighten the connector and tape to secure from moisture.

FIG. 1

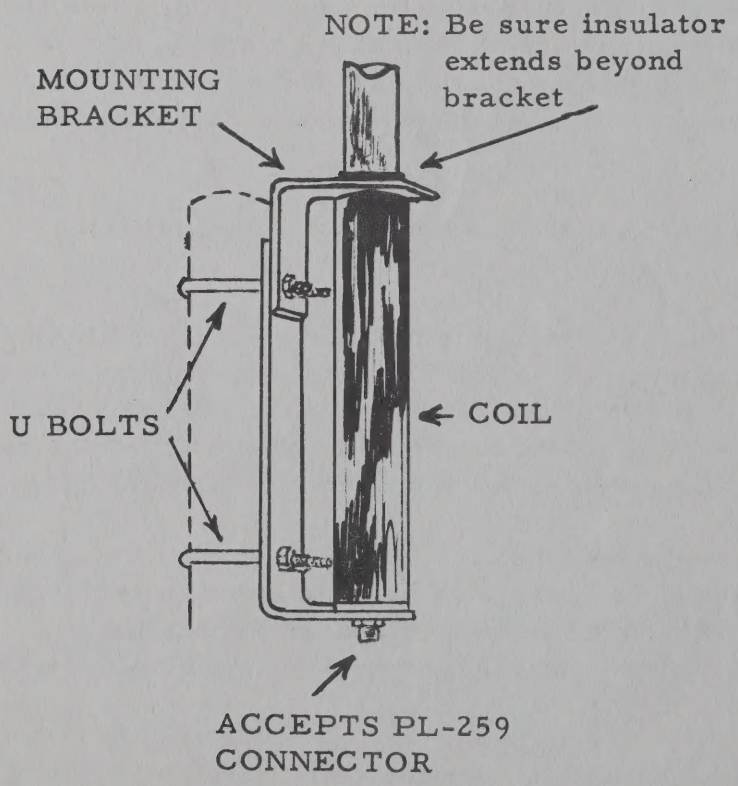
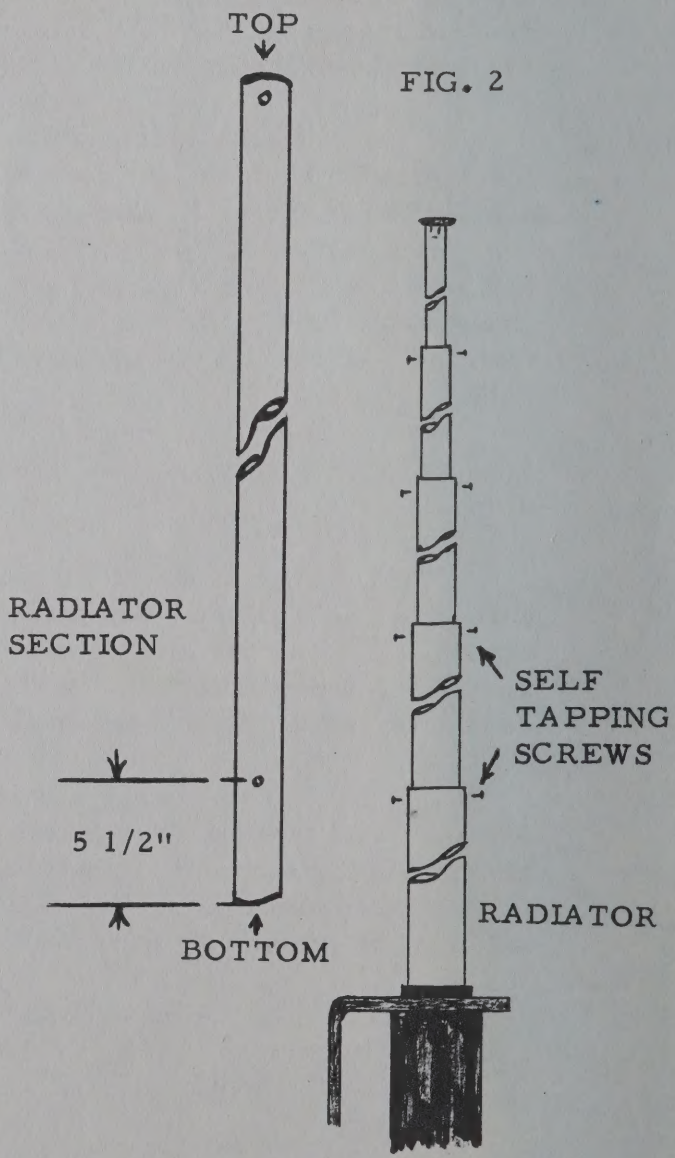
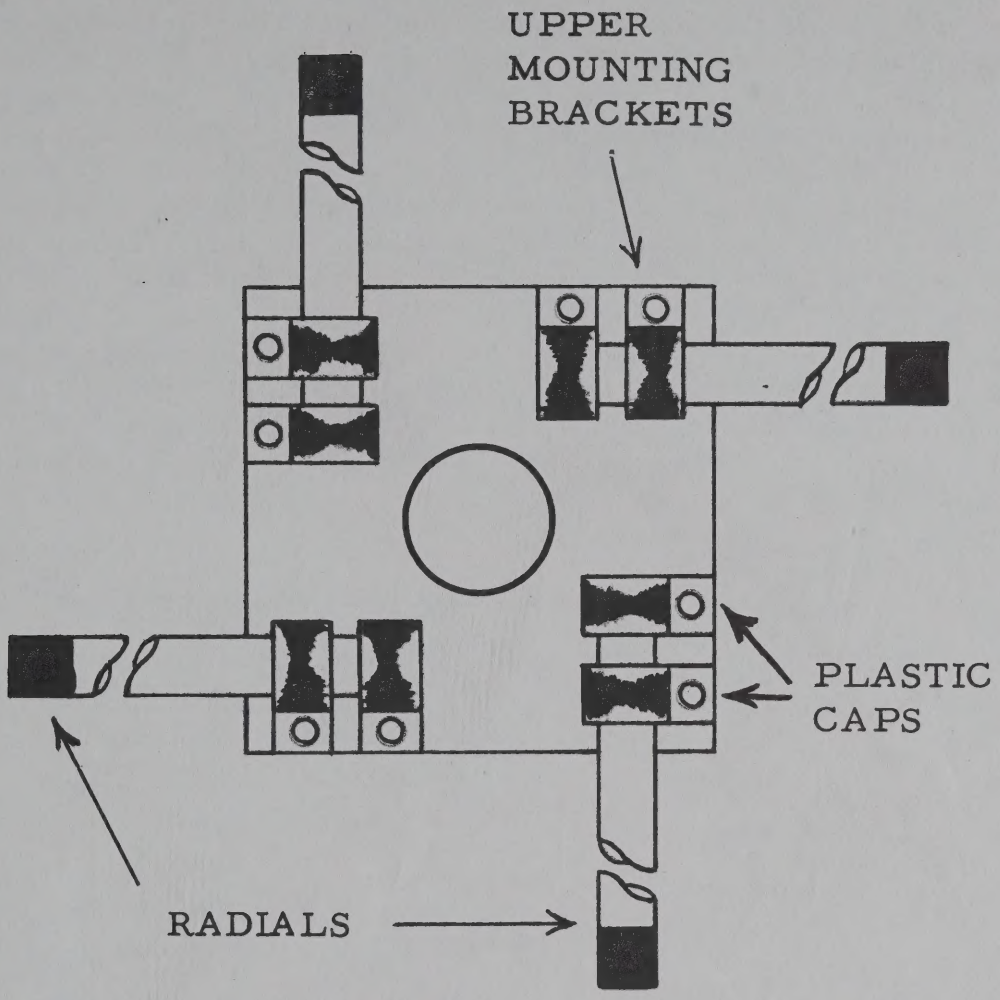


FIG. 2

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